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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/038,539

01/03/2002

Ning Mo

2705-200

7096

20575

7590

05/16/2006

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EXAMINER

JUNG, MIN

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/038,539

Applicant(s)

MO ET AL.

Examiner

Min Jung

Art Unit

2663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 and 16-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-7, 11-14, 16-20, 28-37 and 41-45 is/are allowed.
- 6) ☒ Claim(s) 8-10, 21-25 and 38-40 is/are rejected.
- 7) ☒ Claim(s) 26 and 27 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 8-10 and 38-40 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The newly added limitation regarding a percentage of non-transition packets that are being deleted being greater than a percentage of transition packets that are deleted is a new matter.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical

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Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claims 8-10 and 38-40 are rejected under 35 U.S.C. 102(e) as being anticipated by Bharucha et al., US 6,697,353 (Bharucha).

Bharucha discloses the device and method functioning to receive the voice data packet transmitted over the ATM network according to the device and method as addressed above. Specifically, Bharucha teaches that the processor (terminal adapter 4) functions to receive voice data packet; store the received packets in a buffer (buffer B, 29); retransmit some of the stored packets through the network (cell dropping may occur at any network element throughout the network, see col. 6, lines 6-12); extract a comparative discardability code of a specific one of the stored packets relative to the others, wherein the comparative discardability code is related to a preset type of encoded speech (the marking is related to different types of encoded speech including silence, partial voice spurts, and speech, see col. 5, lines 28-31); make a discard decision for the specific packet in accordance with the extracted comparative discardability code and the preset type of speech (col. 5, lines 31-36, and col. 6, lines 6-12); and delete the specific packet without retransmitting it if the discard decision is to drop the packet (col. 6, lines 6-12). Bharucha further teaches that certain kind of cells are deleted first and certain kind of cells are deleted second, inherently teaching that the percentage of dropped cells of one kind is greater than the percentage of dropped cells

of another kind. See col. 5, lines 28-36. Non-transition packets read on the silence cells, and transition packets read on the partial voice spurt cells.

Regarding claims 9 and 39, Bharucha teaches sensing a congestion in the network, and extracting the comparative discardability code responsive to sensing the congestion (see col. 6, lines 4-6).

Regarding claims 10 and 40, Bharucha teaches setting a discarding probability and making the discard decision in accordance with the set discarding probability (for example, Bharucha teaches that the probability of discarding silence cell is the highest, see col. 5, lines 31-36).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 21-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bharucha in view of Elliot et al., US 6,614,781 (Elliot).

Regarding claim 21, Bharucha teaches a network interface for coupling to a network (the connection 31 shown to connect terminal adapter 4 to an ATM switch (Fig. 1); a processor coupled with the network interface (terminal adapter 4), in which the processor is adapted to receive voice signals (voice signals received from STM switch 3, see col. 4, lines 55-57); group the voice signals into a plurality of serial data speech

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frames (the function of signal classifier 21, see col. 4, lines 57-64); analyze the voice signals of at least some of the data speech frames to classify each in one of a plurality of different types of speech (silence detection and marking, see col. 5, lines 15-31); determine a comparative discardability for some of the data speech frames relative to others from the type of speech (silence, partial voice spurts, and speech, see col. 5, lines 26-36); encapsulate the data speech frames into data packets, at least some of the data packets including a comparative discardability code indicating the determined comparative discardability of the encapsulated data speech frames (STM-to-ATM converter 24, see col. 5, lines 5-14). Bharucha, while teaching ATM network, which employs protocol data unit (cell) in a packet format, fails to teach a packet switching network in a strict sense. However, transmitting voice data packets through a packet switched network is a well-known technology an example of which is shown by Elliot in his teaching of "voice over data telecommunications network architecture". See Abstract. Therefore, it would have been obvious for one of ordinary skill in the art at the time of the invention to implement the voice packet communication technology with discardability information taught by Bharucha by applying it in a voice over packet network as taught in Elliot to achieve a flexible voice over IP scheme.

Regarding claim 22, Bharucha teaches that the cells may be marked (discardability indication) using CLP bit. CLP bit is utilized in ATM network implementing communication for real time data, and therefore CLP bit is a kind of RTP header portion.

Regarding claims 24 and 25, Bharucha teaches that silence is assigned a high comparative discardability, and transition from one type to another is assigned a low comparative discardability. (see col. 5, lines 31-36).

Regarding claim 23, Bharucha fails to teach the types of speech including polsed speech. Since the term "polsed" is defined in the specification as a type of sound (specification, page 10), and Bharucha teaches several types of voice activity such as silence, partial voice spurts, and speech, it would have been obvious for one of ordinary skill in the art at the time of the invention to implement Bharucha by including other types of voice activity such as polsed speech to classify voice activity in a finer detail.

Allowable Subject Matter

7. Claims 1-7, 11-14, 16-20, 28-37, 41-45 are allowed.
8. Claims 26 and 27 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

9. Applicant's arguments, filed February 24, 2006, have been fully considered and are partially persuasive. Therefore, a part of the rejection has been withdrawn. As presented above, a part of the rejection is maintained, and a new ground(s) of rejection is made.

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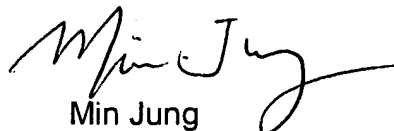
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Min Jung whose telephone number is 571-272-3127.

The examiner can normally be reached on Monday through Friday 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ
May 12, 2006


Min Jung
Primary Examiner